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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,339	09/30/2003	Ryohei Kageyama	02-102	4150

23400 7590 10/05/2005

POSZ LAW GROUP, PLC
12040 SOUTH LAKES DRIVE
SUITE 101
RESTON, VA 20191

EXAMINER	
COMAS, YAHVEH	

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/673,339	KAGEYAMA ET AL.	
	Examiner	Art Unit	
	Yahveh Comas	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13,18 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,18 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/30/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-13 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terada et al. Publication No. 2001/0004177in view of Oba et al. JP Patent No. 9168255.

Terada discloses a commutator comprising a generally cylindrical dielectric body (8); a plurality of commutator segments (3) arranged along an outer peripheral surface of the dielectric body (8), wherein each commutator segment includes at least one ridge (5), which extends in a direction generally parallel to an axial direction of the commutator and radially inwardly projects into the dielectric body (8) to secure the

commutator segment relative dielectric body (8), each ridge includes a projecting portions (5), wherein each projecting portion has a projecting length including at least one groove that is obliquely angled relative to the longitudinal direction of the ridge and at least one protrusion that is bound with one of the at least one groove and protrudes in an imaginary plane generally perpendicular to the projecting direction of the ridge. Also disclose a ridge made of a first and a second ridge (see fig. 2A).

SS Terada et al

Oba disclose the claimed invention except for each ridge including a plurality of high projecting portions and a plurality of low projecting portions, wherein each high projecting portion has a projecting length, which is measured from a base end of the ridge in a projecting direction of the ridge and is longer than that of each low projecting portion and the high projecting portions and the low projecting portions of each ridge are alternately arranged in a longitudinal direction of the ridge. However, Oba discloses a commutator having a ridge wherein each ridge including a plurality of high projecting portions (103) and a plurality of low projecting portions (111), wherein each high projecting portion has a projecting length, which is measured from a base end of the ridge in a projecting direction of the ridge and is longer than that of each low projecting portion and the high projecting portions and the low projecting portions of each ridge are alternately arranged in a longitudinal direction of the ridge in order to prevent the commutator piece from being released or deflected (see fig 1).

Therefore it would have been obvious to one having skill in the art at the time the invention was made to provide a commutator wherein each ridge including a plurality of high projecting portions and a plurality of low projecting portions, wherein each high

projecting portion has a projecting length, which is measured from a base end of the ridge in a projecting direction of the ridge and is longer than that of each low projecting portion and the high projecting portions and the low projecting portions of each ridge are alternately arranged in a longitudinal direction of the ridge as disclosed by Oba since that would been desirable to prevent the commutator piece from being released or deflected.

Regarding claims 7-13 and 19, Terada in view of Oba discloses the claimed invention except for the shape of the low projection. Oba discloses the use of a high and a low projection wherein the low projection is provided with a V shape in order to prevent the commutator piece from being released or deflected. Therefore it would have been obvious matters of design choice to provide a low projection with a different shape as long the shape prevent the commutator piece from being released or deflected since it has been held that the provision of adjustability, where needed, involves only routine skill in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (571) 272-2020. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YC

DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800